AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claims 1 – 13 (Canceled).

14. (New) A fluidic microsystem comprising:

at least one channel through which a particle suspension can flow; and

first and second electrode devices which are arranged on first and second channel walls for generating electrical alternating-voltage fields in the channel; wherein

the first electrode device is adapted for field shaping in the at least one channel and comprises at least one first structure element; and

the second electrode device comprises an area-like second electrode layer with a closed second electrode surface comprising a second passivation layer, wherein

an effective electrode surface of the at least one first structure element is smaller than the closed second electrode surface; and

the second passivation layer is a closed layer completely covering the second electrode layer.

15. (New) The microsystem according to claim 14, wherein the at least one first structure element comprises at least one structured partial electrode.

16. (New) The microsystem according to claim 15, wherein the first electrode device, by way of partial electrodes, comprises individually controllable electrode strips.

17. (New) The microsystem according to claim 14, wherein the first electrode device comprises an area-like electrode layer with a closed first electrode surface which comprises a closed first passivation layer, wherein the closed first passivation layer comprises first layer structures which form the at least one first structure element.

18. (New) The microsystem according to claim 14, wherein the second passivation layer comprises at least one second structure element for field shaping in the at least one channel, said at least one second structure element being formed by second layer structures in the second passivation layer.

19. (New) The microsystem according to claim 18, wherein at least one of the first layer structures and the second layer structures comprise regions of changed thickness in the first passivation layer and the second passivation layer.

20. (New) The microsystem according to claim 19, wherein the regions are inhomogeneous with at least one of a thickness gradient and a material gradient.

21. (New) The microsystem according to claim 18, wherein at least one of the first layer structures and the second layer structures comprise regions containing at least one material differing from a material of a remaining and surrounding portion of the first passivation layer or the second passivation layer.

22. (New) The microsystem according to claim 21, wherein the regions are inhomogeneous with at least one of a thickness gradient and a material gradient.

23. (New) The microsystem according to claim 17, wherein at least one of the first passivation layer and the second passivation layer comprise(s) several layers.

24. (New) The microsystem according to claim 14, wherein at least one of the first passivation layer and the second passivation layer is at least partly formed by a layer material whose dielectric characteristics are reversibly or irreversibly changeable.

25. (New) The microsystem according to claim 14, wherein a third electrode device is provided for generating electrical direct-voltage fields or direct-voltage pulses in the at least one channel or in a transverse channel branching off from the at least one channel.

26. (New) The microsystem according to claim 14, wherein an external electrode device is provided for generating electrical direct-voltage fields or direct-voltage pulses in the at least one channel or in a transverse channel branching off from the at least one channel.

27. (New) A method for field shaping in a channel of a fluidic microsystem according to claim 14, wherein a geometric shape of electrical fields in the channel is determined by a geometric shape of layer structures in passivation layers in which there is a modified field transconductance.